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ABSTRACT

Following a brief summary of Trubetzkoy's views of Russian word roots, a statistical analysis is performed on a short literary passage in seeking to examine whether all types of roots merely coexist in modern Russian or whether there is an expansion of certain types and a contraction of others. Results point out statistical and semantic inadequacies in previous theory, and new criteria for root analysis are proposed. Application of the new theory based on synchrony and structure obtains a reduction of the residual group of root types derived from the sample to less than one percent. The author concludes that for a valid linguistic understanding of modern Russian, a synchronic rather than a diachronic analysis is required. (RL)

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THE STRUCTURE OF THE ROOT IN MODERN RUSSIAN

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Trubetzkoy, who has given an as yet unsurpassed synchronical survey of Russian morphophonemics, was rather irresolute in his characterization of Russian word roots. He wrote: "In root morphemes the number of syllables is as a matter of fact unlimited. In practice, root morphemes of more than three syllables occur only in foreign words, and an unusually large number of syllables in such root morphemes is felt as an earmark of their foreign origin. But trisyllabic root morphemes are not rare in 'genuine' Russian words." He quotes as examples perepel, kolokol, karandaš, karapuz, gornostaj, skovorodka, balagan. After pointing out some specific types of roots: monoconsonantal in pronouns (k-to, č-ego, t-o, /j-iv6/) and in šč-i; those ending in a vowel (V) in verbs (zna-t', zre-t'), he gives up further characterization: "Possible structural types of root morphemes are so numerous and various that we must abstain from illustrating them with examples."[1]

Trubetzkoy did not corroborate his view with any statistical data. To check up his observations I have taken as test material the first 500 words (excluding prepositions, conjunctions, and particles) from Bunin's Mitina ljubov'.[2] The results of the count follow:

Structure	Examples	Number of words
CVC	zim-a, lic-o, <š#l' -i>	260
CCVC	sneg, kryš-a, drem-at'	52
CCCVC	straš-no, strel-a	3
CVCC	vesn-a, verx, revn-ovat'	37
CCVCC	prost-o	3
CCCVCC	strast-noj	1

Since consonantal clusters both before and after the vowel in all the above cases are clusters which are regularly admitted in Modern Russian and which function as simple consonants (C) do, we can in further exposition denote by C not only a consonant but also any admitted consonantal cluster, and thus reduce the above 6 types of roots to one, monosyllabic roots with a V between consonants, CVC. Their total number is 356 (73%). Monosyllabic roots ending in C but with no initial C follow next:

VC		32
VCC	utr-o, art-ist, obšč-ij	4
VCCC	ostr-yj	1

The small number (37 — 7%) may be reduced even more because the bulk of the first number consists of specific pronominal roots on- (12x) and èt- (15x), and the remainder is formed by už-e, which, rather, is probably unanalyzable and is best considered as a particle. With these cases excluded, the total would be only 5 cases, i.e., 1%, a negligible quantity.

Roots ending in V are represented by two categories, altogether 40 cases:

CV	pod-nja-všijsja	38
CCV	pere-sta-n', po-spe-vala	2

The main body of the first figure is formed by the often recurrent verbal root by- (14x); 6 cases are represented by the pronoun ja, and 13 by the pronominal root i-/e- (ix, im; ego, emu), both latter cases dubious and better excluded from the count. If we exclude them, the total would be 21, or 4%.

Roots devoid of V occurred only in pronouns: 35x C (to, tỳ, my, vy, čto), 6x CC (svoj, tvoj, gde; also the numeral dv-enadcatyj), the total being 41 cases.

The next type of roots is disyllabic roots with same vowel in both syllables: CVCVC (xoroš-en'kaja, terem, golos, porog; teper', govor-ila, podob-nye, Egor, devjat-yj).[3] These roots amount to 16 cases.

What remains is roots unanalyzable in terms of preceding root types, thus seemingly confirming the statement of Trubetzkoy that roots in Modern Russian are indefinitely

variable in their structure: bul'var, žavoron-ki, trotuar, monast-yr', vizantij-skie, pamjat-nik, kitaj-skuju, impe-ratr-icu, bogem-u, teatr-al'nyx, užin-at', pro-deklam-irovala, maner-noe, Cimmerman. This supplies us with 16 cases. The condensed summary table may be the following:

CVC	356	
VC	37	(thereof 27 pronominal)
CV	40	(thereof 19 pronominal)
C	41	(all pronominal)
CVCVC	15	
Unanalyzable	16	
Total	505[4]	

There are no reasons to suppose that a count in other texts would essentially change the picture of root types distribution, at least as long as a traditional, purely static approach is applied as above. The question to answer, however, is whether all the types of roots found merely coexist in Modern Russian, or whether there is an expansion of certain types and a contraction of others. It is a question of productiveness or unproductiveness in different root types; of some types spreading at the expense of other types; of those other types shrinking or losing ground. Trubetzkoy's approach in this respect was traditional and lacked dynamics. The Russian language, insofar as roots were analyzed by him, was for him a pile of dead objects; for us at present it rather is a bundle of variously directed forces. This is not to reproach Trubetzkoy: in the twenties and the thirties the most important problem was to delimit synchrony from diachrony and to establish synchronical analysis as a legitimate part of linguistics. Nowadays, the main problem a scholar faces is to grasp synchrony as dynamics. This has become possible on the basis of the achievements of Trubetzkoy and his generation.

And yet, one must admit that in the problem of Russian roots Trubetzkoy was an inconsistent synchronist. He paid tribute, unexpectedly and perhaps unconsciously, to the adversary he bitterly fought. There is a great deal of the etymological, i.e., historical, approach in the way he treats Russian roots. To take one of his examples: historical linguists may argue about the etymology of gornostaj 'ermine.'[5]

But from the synchronical viewpoint, the word is a compound with two roots, gor- and staj, each of them monosyllabic (CVC). No Russian speaker would be able to explain why this animal, which is not found in mountains (gora!) nor lives in packs (staja!), has such a name. Still, for Modern Russian no reason exists to take the entire word for a mere trisyllabic root, as Trubetzkoy did.

It appears that in such cases Trubetzkoy followed the traditional approach to roots, i.e., of considering them as bearers of referential meanings in words. This is true in the sense that, inasmuch as a word has referential meaning, this meaning is centered in the word root. Practically, however, the search for referential meaning turns out to be a search for motivation, for what Humboldt and Potebnja called the inner form of words. Parovoz, it says, is called so because it voz-it par-om. To see how illogical such an approach is, it suffices to compare the word with paroxod and ask whether the words for railway engine and steam boat could not easily be interchanged. As in many other cases, logic is commissioned here to patch or disguise what actually is not subject to general logic, since it follows another set of rules, the rules of a particular system of a language in a given time of its existence.

Hence it is crucial to establish that roots are primarily morphemes which are to be delimited by delimiting other morphemes, with which the roots are correlative (affixes, endings). The roots may have referential meanings, but they need not have them. Let us test this by an analysis of some compounds in Modern Russian. From the point of view of referential meaning of their components, they may be classified in four groups:

1. Both components have clear-cut referential meanings: èfiro-manija, foto-bakterija, psixo-analiz.

2. Only the first component has such a meaning: disko-bol, ikono-stas, meteoro-lit. The second component is identifiable as far as it (1) does not belong to the first stem, and (2) cannot be identified as a suffix, both provided that the stress pattern of the word is that of compounds, with the only or the main stress on the second component.

3. Only the second component has a referential meaning: uni-forma, gelio-centrizm, pato-genez. The first component is identifiable as far as it (1) does not belong to the

second stem, and (2) cannot be identified with a prefix, both provided that the stress pattern of the word is that of compounds.

4. Here we come to the compounds in which neither root has referential meaning from the viewpoint of Modern Russian: ippo-drom, sapro-fag, ksilo-fon. Words of this type belong in Modern Russian to compounds primarily because they follow the structural pattern of Russian compounds (in accentual contour, number of syllables, distribution of vowels, unidentifiability of any part of the words with affixes, etc.). This possibility is enhanced if the distribution of the would-be roots is such that they both or at least one of them reoccur in other words, as:

	ippo-drom	
ipo-teka		aèro-drom
ipo-xondrik		palin-drom
		velo-drom
	sapro-fag	
sapro-fit		antropo-fag
		fito-fag, etc.

The inference of our cursory glance at the four types of Russian compounds is that structural characteristics of the words suffice to label these words as compounds or not and to single out their roots; whereas characterization from the standpoint of referential meaning is in many cases insufficient. In other words, the analysis of referential meanings can be dispensed with for purposes of morphology. The entire analysis may be based on structural characteristics alone.

This statement, as well as the analysis of compounds performed above, will probably not be opposed by educated speakers of Russian (although they may frown indignantly at the identification of /ipa-/ in ippodrom and ipoteka, etymologically, of course, quite different.)[6] Still, in identifying words as compounds they themselves may be guided by those scraps of acquaintance with foreign languages they customarily possess. They will have a harder time following the principle of structural analysis consistently applied also to those cases in which its results would differ from those of an etymological approach. The case of gornostaj quoted above from and against Trubetzkoy is a still easier one: here both components at least have their "extra-etymological," "synchronical" "meanings." In karapuz,

another example of Trubetzkoy's, a "meaning" can be discovered at best for the "second component" -puz. Finally, an assertion that skovorodka and balagan, too, fit into the structural pattern of compounds might seem quite shocking: /skav-a-rót-k-a/, /bal-a-gán/. With this approach, one horrifying from the point of view of etymological thinking but sound and sober synchronically, either word has two monosyllabic roots. This statement may be reversed, if one prefers to calm down "etymologists": the tendency of Modern Russian to have predominantly monosyllabic roots results in historically arbitrary breaking down of longer and otherwise unidentifiable morphemes into "arbitrary" roots.

Quite a few words with etymologically polysyllabic roots in the Modern Russian vocabulary actually function as compounds. I have excerpted material for this article exhaustively from several pages of Avanesov and Ožegov's dictionary.[7] Some, more noticeable, examples follow, hyphenated after their linking vowels (it would be impossible to quote all of them): kande-ljabr; kani-fas, kani-fol', kanni-bal; kanti-lena; kara-bin, kara-van, kara-vella, kara-gač, kara-katica, kara-mel'; karda-mon, kardi-nal; karia-tida; kata-vasija, kata-komby, kata-lažka, kata-log, kata-rak-ta, kata-strofa, kata-falk, kate-gorija; kacą-vejka; kaša-lot (cf. kaše-var!); kolo-šmatit'; kolče-dan; kombi-nezon; koče-vrjažit'sja, koče-ryž-ka; koše-nil'; krino-lin; kuro-lesit'; labo-ratorija; laza-ret; lapi-da-rnyj; lati-fundija; lejko-cit; leo-pard; mago-metanin; mada-polam; mani-kjur, mani-fest; mara-fonskij; meri-dian, meri-nos; metro-nom; mecco-tin-to; mina-ret, mine-ral, minne-zinger; mira-bel', etc. In some of these words our breakdown coincides with the etymological one; in most it does not. In either case it is based on synchrony and disregards etymology.

The same principle applies to the delimitation of roots and suffixes. It is well known that in Modern Russian some words are marked out by suffixes, although etymologically they are loan-words and in their original languages did not have any suffixes or at least not these suffixes. It suffices to refer to such words of Turkic origin as armjak, argamak, also (if Turkic, too) kabluk, etc. On the other hand, no one can deny a tendency to single out "suffixes" in recurrent post-root parts of numerous loan-words recently borrowed. Vinogradov speaks in such instances of "little-tangible"

(maloosjazatel'nye) suffixes, e.g., -z, -zis (analiz, genezis), of suffixes "with various objective meanings" like -ing (bljuming, miting, etc.).[8] His observations, vague and "little tangible" as they are, do grasp some of the reality of Modern Russian. That they contradict the traditional methodology seeking for "meanings" in both roots and suffixes is of no importance. In these phenomena the same tendency of Modern Russian to have roots according to its own pattern, i.e., predominantly monosyllabic, manifests itself. If one dares to divide bljuming into the root bljum- and the suffix -ing, both devoid of any clear-cut referential meaning, one must be bold enough to tackle in the same way morphological analysis of such words as, e.g. kuš-ak, baš-k-a, kuvš-in, lošad', kurg-an, end-ov-a, etc. The corresponding selected material from Avanesov and Ožegov is: kar'-er-a, mad-er-a, man-er-a; kat-et, kast-et, kvart-et, kok-et-k-a, kol-et, kors-et (cf. kors-až), lanc-et, laf-et, levr-et-k-a, ljun-et; mak-et, manž-et-a, mušk-et; kort-ež; kastr-at, kvadr-at, karb-on-at (cf. karb-ol-ov-yj), leg-at, magn-at, mand-at, mul-at, musk-at; kat-er, kvak-er, kel'n-er, kol-er, krater, krejs-er, krejc-er, kap-er, karc-er, makl-er, mist-er; kart-of-el' (cf. kart-oš-k-a; cf. koš-el'), kart-el', karus-el', kaf-el', kóm-el', krend-el', makr-el', muf-el'; kaps-ul-a, kastrj-ulj-a; komm-un-a, lag-un-a, ljad-un-k-a, etc.

It is more difficult to speak about purely "structural" prefixes. Prefixes in Modern Russian are much more limited in number than suffixes are, and more often (though not always, by far) have spatial connotations, i.e., a type of referential meaning. Nevertheless, it is possible to observe that in a sense "meaningless," "structural" prefixes seem to be penetrating Modern Russian more and more. The most typical series is that of kom-, kon-, and ko-. The following morphological breakings down are possible: kom-bin-ir-ovat', kom-pens-ir-ov-at', kom-plekc-ij-a, kom-plim-ent; kon-dens-ator, kon-dic-ionn-yj, kon-dukt-or; ko-sek-ans, ko-sin-us, ko-tang-ens, ko-èffic-ient, also ko-mmut-acij-a, and, further, ka-čuč-a, ko-lenk-or, ko-libri, ko-llédž, ko-llektiv. Some "native" Russian words may be considered in the same way: ka-pust-a, ko-leb-a-t', ko-len-o, ko-les-o, ko-lup-a-t', ko-lym-ag-a.[9] If this is acceptable a next step may be taken, and the words of the type kajuta, kotil'on, kosmetika may be divided into ka-jut-a, ko-til'-on, ko-smet-ik-a. Do they function so? Can this principle be applied to

such cases as ža-voron-ok? go-sud-ar'? I prefer to leave this an open question until a more detailed analysis has been performed.

So far we have dealt with monosyllabic roots. The introductory material excerpted from Bunin also contains disyllabic roots of the type CVCVC with the same vowel in both syllables. Historically speaking, they go back to pleophony (golov-a, korov-a) or to loan-words from Turkic languages with their vowel harmony (bazar, turusy). In the first category the middle consonant was r or l, in the second, any one. The originally pleophonic roots of the type gólov-a bridged the gap between the monosyllabic and disyllabic roots in that that they followed the same stress pattern (golová, acc. gólovu like nogá, acc. nógu). On the other hand, through originally pleophonic words with stable stress (type koróva), ties were established with numerous loan-words with immovable stress. Another bridge was created here by alternations of the type zamorózit' ~ zamoráživat', nakolótit' ~ nakoláčivat' (/-aro- ~ -ara-/, /-alo- ~ -ala-/) which spread pleophony beyond o and e groups, to which it originally had been restricted. Thus, roots of the type CVCVC, which we can label as structurally pleophonic, have entered the pattern of Modern Russian morphology, although statistically they are far behind the monosyllabic roots.

In assimilating structurally unfamiliar roots Modern Russian uses structural pleophony broadly. The following words are or may be analyzable so: kanat, kanon, karas', karat, katar, kokon, kokos, kolob, kolonn-a, koloss, komar, kotor-yj, kočan, krečet, ladan, lebed-a, lebed', lemex, mažar-a, major, makak-a, malag-a, mammon-a, mamont, maral, mesjac /m'é-s'ic/, metis /m'it'ís/, murug-ij, nabat, navag-a, vesel-yj, etc.

Both structural pleophony and suffixation are employed in karan-daš, karan-tin, karač-k-i, karač-un, kator-g-a, keren-k-a, koka(j)-in, kokar-d-a, kokot-k-a, kollo(j)-id, kollokv-ium, kolon-ij-a, koman-d-a, kotom-k-a, kočer-g-a, lavan-d-a, lakom-i-t', lebez-i-t', legen-d-a, lelej-a-t', lepest-ok, magaz-in, majol-ik-a, majon-ez, malax-it, mamal-yg-a, manat-k-i, marak-ova-t', mecen-at, meščer-jak, etc.

It is still to be clarified whether the roots with consonantal clusters between the two identical vowels may be considered as pleophonic in the above sense, such as kandal-y,

kanton, karman, kaskad, kaftan, ketmen', koldob-in-a, komnat-a, mandol-in-a, mansar-d-a, margan-ec, mušmul-a, na-bekren'. Such structures seem rather to tend to be broken down into monosyllabic roots and "suffixes."

Singling out familiar roots by means of "arbitrary" compounding, suffixation, "pleophonizing," and, probably, prefixation are typical procedures of Modern Russian morphology. By applying them, the language in most cases succeeds in making its words really Russian. Only a negligible quantity of words defies this internal reshaping. In many cases such words do not become a part of the active vocabulary. They mostly remain erudite and/or designate remote and foreign notions.

If now, with this experience, we return to the words from Bunin which have previously escaped our morphological analysis, we shall be able to reduce essentially the "insoluble residue." The words bul'var, trotuar, Kitaj, bogema, manera, užinat' yield the "synchronical suffixes" -ar, -uar, -aj, -em, -er, -in. The root in monas-tyr' proves to be "synchronically pleophonic," and so probably does the root in pamjatnik /pám'it-n'ik/.[10] If we admit consonantal clusters in this type of roots between the two vowels, we can add the word imper-atr-ic-a. The word žavoronok would be analyzable by dint of "synchronical prefixation." The residue, then, is reduced to four words: vizantijskij, teatral'nyj, prodeklamirovat', Cimmerman, less than 1% of all words, two of them, in addition, foreign proper names.[11]

While tending to reshape words with unfamiliar morphological structure according to usual patterns, Modern Russian in certain cases retreats before the overwhelming number of the new-type words and, albeit grudgingly, admits new samples. The most characteristic example is compounds without linking vowels, with two roots connected loosely or by a parasitic consonant between them which, then, begins functioning as a linking consonant. Examples of the first type may be kapel'-diner, kapel'-majster, kvartir-majster, kvint-èssencija, kegel'-ban, kolon-titul, kolon-cifra, kol'd-krem, kran-balka, krem-soda, land-šturm, lejb-gvardija, lejt-motiv, lend-lord, ljumpen-proletariat, mizan-scena, mjuzik-xoll; of the second type, rarer: land-s-knext, metra-n-paž, metr-d-otel', štab-s-kapitan.

This foreign sample has been supported by native abbreviated words in which the first component ends in a

consonant (kolxoz, lekpom, mestkom) and by rare Russian native compounds without linking vowel which go back to appositions or petrified expressions (meč-ryba, mir-volit'). At present, compounds without linking vowel in Russian are numerous enough and characterized sufficiently to become, in their turn, the basis for synchronical decompositions. The following words may serve as examples of the latter: karam-bol', kar-bjurator, kar-niz, kar-teč', kver-šlag, kok-sagyz, kok-tejl', kol'-rabi, krax-mal, krep-dešin, land-šaft, lev-koj, man-til'ja, man-tissa, mund-štuk, etc.

The would-be compounds with stress on the potential linking vowel are not so well established. Historically they were represented by three words, kikí-mora, karáˊ-mora, karáˊ-kulja, exceptional because of their affectivity, according to Trubetzkoy.[12] In our days the type has increased: cf. karáˊ-kul', metáˊ-fora and, in particular, numerous words in -graf, -log, -metr, -èdr, -liz which shifted their stress from the last syllable during the nineteenth and twentieth centuries (geó-graf, kriminó-log, laktó-metr, tetráˊ-èdr, katáˊ-liz). Whether it means that -graf, etc., are being transformed into suffixes,[13] or that virtually that type of compounds spreads, remains unclear. So far, it is more prudent not to consider this type as actively participating in decompositions which characterize words in Modern Russian, although it could offer a solution for several otherwise unanalyzable cases (kaníkuly, muxórtyj, namédni).

With all other procedures of decomposition applied, the unanalyzable residue in the material excerpted from Avanesov and Ožegov is insignificant. In relation to the total number of words excerpted (about 4000) it makes less than 0.5%.[14] Mostly these are disyllabic words with different vowels in the two syllables: karel, kolumb-arij, kómpas, kómpleks (kom- hardly functions here as a prefix because it is accented), kostjum, lament-acija, laring-it, latun', letarg-ija, ljumin-iscentnyj, lazur', madrig-al, maksim-al'nyj, makul-atura, manëvr, merkant-il'nyj, mikrob, musul'm-anin. Other words contradict the Russian pattern because they admit two vowels not separated by a consonant: kauz-al'nyj, kaup-er, kaust-ik, kauč-uk, kreat-ura, kreol, laur-eat, luiz-it, made-muaz-el'. A few words are close to compounds but cannot enter the type because /u/, and not /a/, is used in the place of a linking vowel: manu-skript, manu-fakt-ura.

If we set aside this negligible amount it may be said that all non-pronominal roots in Modern Russian have the structure CVC, VC, CV, or CVCVC, C denoting a consonant or an admitted consonantal cluster, and V, a vowel, the same if repeated.

The objection of non-uniqueness of the suggested solutions may be raised. Indeed, in certain cases the same word can be analyzed in two, or even more, various ways. Thus, e.g., partly returning to the examples already used, balagan may be analyzed as a compound bal-a-gan, or as a pleophonic stem + a suffix: balag-an; kanonada as a compound kan-o-nad-a or as a pleophonic root + a suffix: kanon-ad-a; accordingly, kar-o-tel' or karot-el': min-a-ret or minar-et; and with possible prefixation: kompr-o-miss or kom-pro-miss, etc. One may say that after eliminating the criteria of referential meaning the structural distribution alone has necessarily led to ambiguity. So the conservatives in art say that the elimination of "normal objects" from abstract painting opened it to daubers and confused all former value criteria.

It is not my purpose here to defend abstract art, if it should need a defense. As to the non-uniqueness of morphological analysis suggested here, this is, in my opinion, rather a theoretical advantage, while for practical purposes non-uniqueness can be easily avoided. To begin with the second: the only thing required in order to have unique and unambiguous results of morphological analysis is to agree on the hierarchy of approaches employed. If a gradation is set in which, say, compounding has preference, and suffixation, alone or with pleophony, is given second place, there will be no doubt that, say, balagan is to be treated as a compound. The hierarchy may be more elaborated with many "if's." In any case this is a matter of practical efficiency, and is feasible. It may be recalled, incidentally, that with the traditional semi-etymological and semi-structural approach, instances of ambiguity or of impossibility of decision were frequent, too. It was not easy to say without hesitations whether the root in komnata is komn- or komnat-, whether or not komar contains a suffix -ar, where is the root in kočevrjažit'sja, etc. Thus, neither approach yields unambiguous and ultimate decisions for all cases. The difference between the two does not lie in this.

It lies in the fact that, with the traditional semi-etymological approach, solutions were non-unique and arbitrary. With the purely structural approach, as suggested here, they are also non-unique but no longer arbitrary, in the sense that their vacillations reflect vacillations of the Russian language itself. It is not the linguist who does not know which of the two possible decompositions of, say, kanonada is preferable, but the Russian language. If synchrony is an incessant, permanent conflict of variously directed forces emerging from the system itself, this conflict is the reality of the language. Only that method is adequate which is able to grasp this conflict. In our case, Modern Russian struggles towards a specific structure of root through the flood of the extremely heterogenious (in this respect) linguistic material. Often it only gropes toward the solution. There is nothing surprising in the fact that frequently several solutions are grasped at simultaneously because no one satisfies completely and because, in this case, to use the expression with a grain of salt, the ends justify the means.

Many pehnomena of Modern Russian corroborate our observations. Let us take a glance of two of them: children's language and stress shifts.

When a Russian child decomposes the words ètažerka and taburetka into èta žerka and ta buretka,[15] it is not only because the initial syllables of the two words sound like the demonstrative pronouns ètot and tot. No native speaker would decompose, say, the gen. sg. ètaža into èta ža or tos-ka into ta ska, for the simple reason that ža and ska would contradict the rules regulating the structure of Russian word root; whereas the separation of èta and ta from ètažerka and taburetka makes the new "roots" of the two words exactly fit into the familiar pattern CVC (žer-k-a, bur-et-k-a).

Many other "word mutilations" recorded from Russian children also reveal a keen feeling for root structure. In vazelin, kompress, ventiljator, èkskavator the extensions of the roots are obscure: vaz- or vazel-, kompress, or komp- or -press, etc.? When Russian children rearrange these words in mazelin, mokres, vertiljator, peskovator (Čuk. 22, 23, 25) this is not only to introduce comprehensible root morphemes ("motivation") but also to attain a root morpheme with normal structure and clear boundary of the type CVC (maz-elin) or CVCC (mokr-es, vert-iljator, pesk-ovator). This is a kind of folk etymology. But the gist of

any folk etymology, against the widespread opposing view, is primarily to adjust roots or "roots" to familiar samples and, only as a matter of secondary importance, to interpret words semantically. This is why—a generally known fact—so many folk etymologies are devoid of any logical connection with the main notion designated by the word. Profoss became proxvost in Russian not because police inspectors had tails (xvost!) but because the morphological set of profoss is unclear, whereas it becomes ideally lucid in proxvost. Many puns deliberately created by writers in principle are a sort of folk etymology, as well. They, too, reveal fine feeling for morphemes, in particular for root structure. When Leonov makes one of his characters sarcastically change ortodoksy into vertodoksy,[16] it means that presence of the two roots ort- and -doks was "felt" in the original word, though they have no referential meaning within Russian. In Il'f and Petrov's pun transforming Savonarola into Savanorylo (Kak sozdavalsja Robinzon) a word which was amorphous in Russian morphology is given its morphological form by introducing "roots" of familiar structure CVCVC (savan-) and CVC (ryl-). The comic effect is produced by the conflict between the now so transparent morphological set-up and the striking nonsense in the combination of the referential meanings.

Substitutions in children's language, folk etymology, and puns are, however, on the margins of linguistic development and functioning. They prove that "feeling" for root structure does exist in Modern Russian, but they do not essentially affect the development of Russian. This effect is tangible in the sphere of stress, especially of stress in foreign words. In Russian linguistics, the stress in loan-words is usually accounted for by the source of borrowing. Such is, for instance, the most recent attempt in this domain, made by Bulaxovskij.[17] But no one has as yet succeeded in explaining Russian stress in loan-words from this viewpoint alone, and Bulaxovskij, too, has failed. This is not an individual failure but a failure inherent in a fallacious method. Once adapted by Russian, foreign words start adjusting to the Russian set of morphemes, and their actual accentuation is a compromise between the original one and that being imposed by the morphological patterns of Russian. Bulaxovskij in his article time and again notes discrepancies between the stress of a word in its original language and in

Russian. Sometimes he even gives explanations for stress shifts from the Russian morphological system, e.g., evnúx becoming évnux under the influence of kónjux, káučuk changed to kaučúk as affected by Russian words in -úk, tíun replaced by tiún according to Russian words in -ún, profíl' having become prófil' because it was originally feminine and, thus, found itself in the type própast', prórub', etc. But actually these shifts of stress are not only induced from one word or a group of words, but depend chiefly on decomposition of foreign words into morphemes shaped according to the requirements of Russian morphology. The shift of the stress in evnux, kaučuk, tiun signals that new, Russian, roots have arisen in these words: evn-, kauč-, ti-, Russian in the sense that they follow the structuring patterns of Russian morphology.

In many more cases Bulaxovskij admits that he is unable to explain shifts of stress. Some of these cases are perfectly clear from the point of view suggested in this article. Let us analyze briefly a part of these instances. Turkic loan-words should have final stress, but the words bakaléja, baklága, vatága, kibítka deviate. Finnish loan-words are bound to have initial stress, but the words saláka, pel'mén' deviate. The words krakovják, temlják, pasternák, župán, rydván, maljár, stoljár do not follow the penultimate stress of their original language, Polish. The Greek words avtomát, avtoxtón, aksióma, giacínt, gipotenúza, gippopotám, kaštán, kráter, mavzoléj, medúza are expected with different stresses: avtómat, avtóxton, aksíoma, giácint, gipoténuza, gippopótam, káštan, kratér, mavzólej, méduza. The English words bjudžet, komfort, reporter acquired an inappropriate final stress (Bul. 8-15). All these "deviations" make no difficulties if explained from the system of Russian. They follow the familiar pattern of stress in suffixed words or compounds: bakaléja like assambléja, galeréja, axinéja; baklága, vatága like dvornjága, sotnjága;[18] kibítka like nalívka, žestjánka, masljánka (Ak. 247); sal-ák-a like kusáka, rubáka; pel'm-én' as pletén', kistén'; krak-ovj-ák, temlj-ák, pastern-ák like kostják, krugljak, porožnják (Ak. 237); župán, rydv-án, kašt-án like stakán, buján, velikán: cf. also karmán, kal'ján, etc.; giac-ínt like incidént, koèfficiént, diktánt (Vinogradov, 110); gipoten-úz-a, med-úz-a supported indirectly by the type skul'ptúra, korrektúra, literatúra (Ak. 206), in its turn supported by a series of the native

suffixes of the type /ul'-a/, -uš-a (čistjúlja, činúša) with the same stress pattern; krát-er like káter, krájser, mák-ler: cf. sévər, véčer, šáber; bjudžét like kisét, berét, lafét; report-ër, brettër, bašnër, kioskër, uxažër (Ak. 226);[19] avt-o-mát, avt-o-xtón, gipp-o-potám, mavz-o-léj, aks-i-óma have joined the pattern of compounds; com-fórt singled out the prefix and, consequently, the stress was to be shifted to the newly found root.

Other cases are more delicate and require a subtler individual treatment. The shift of stress in súffiks, préfiks (Bul. 14) from the final syllable probably means that -iks in both words obtained the status of a suffix, so that from the point of view of Modern Russian—horribile dictu—the roots are now /suf-/ and /pr'ef-/. Originally the opposition between the two words was expressed by their prefixes pre- and suf-. Since for Russian it was not spatial these morphemes were not motivated as prefixes and would become parts of roots. These roots, however, did not fit the Russian morphological pattern. By assigning the common final part of the words -iks to be a suffix (cf. also kodeks, indeks) the new acceptable roots have been obtained. The stress shift only sealed the morphological reconstruction of the two words.

Bulaxovskij (14) is amazed by the final stress in fistulá, which is neither Latin nor Italian (both stress the initial syllable). There is no suffix -ul-á in Modern Russian. Apparently the word was affected by the whole category of feminines denoting spatial notions. They have the same number of syllables, the same structure of both root and "suffix," and always the final stress: glubiná, širiná, tolščiná; širotá, vysotá, dolgotá; prjamizná, krivizná, levizná.[20] Fistula meaning span of an "abnormal hollow passage from an abscess, cavity or hollow organ to the skin," etc., fitted well into this type of Russian words both morphologically and semantically.

While here semantics aided morphology, déspot (Bul. 12) shifted its stress from the final syllable despite its semantic aloofness from the words with the suffix -ot /-at/ (groxot, rokot, topot, xoxot); and the same category was inducing in the case of the early 19th century klimát becoming klímat (/kl'ím-at/) (Bul. 13). In the case of atóm transformed relatively recently into átom the crucial role fell to avoiding the possible decomposition of atóm into <ot-óm> with an

embarrassing pseudo-prefix ot-.

Reasons for the greater part of stress shifts in foreign words of Modern Russian lie in how the corresponding words are or tend to be broken down into morphemes in Modern Russian, and this is conditioned by the regularities in Modern Russian itself, disregarding the real history of the words and their morphological make-up in the languages of their origins. Moreover, Russian morphology is responsible not only for shifts of the stress. If the stress preserves its original place it is again, as a rule, the structure of Modern Russian which dictates it not less than the momentum of the usage in the lending language. In Bulaxovskij's material this is obvious in the cases in which Latin, which supplied Russian with the words in question, had double stress in the paradigm: pórtio—portiónis, míssio—missiónis; réferens —referéntis, insúrgens—insurgéntis (Bul. 14). In the first type Russian accepted the stress of the nominative (pórcija, míssija), in the second that of the oblique cases (referént, insurgént), because these stresses corresponded exactly to the "rules of play" in Russian.[21]

In the words postulát, degenerát, originál, intellékt, kreatúra, menzúra, kódeks, according to Bulaxovskij, 13, Russian has preserved the place of stress as it was in Latin. This seems true, but actually one must ask: Has Russian really preserved the old stress place because it so was in Latin or because it suited its own system? One may compare postulát, degenerát with soldát, bulát, špagát, kastrát, limonát (so in the early 18th century); the underlying Russian stratum may be seen in the adjectival type borodát, volosát, pernát. For originál see metáll, kapitál, kardinál, šakál. Words in -kt, -nt, -st could have found support in Russian adjectives in -ist, -ast: goríst, rečíst, kameníst, etc. For kreatúra, etc., cf. the type devčúra, etc. In the light of what has been said, the answer will be that the main forces at work here were those of Russian itself, whereas inertia of the original accentuation could at best have played a subordinate and auxiliary role. Paradoxically, one could say that the stress place in postulát is Russian in spite of the fact that it coincides with the stress place in Latin, in this word.

The material of children's language, folk etymology, and distribution of stress, even in those scarce examples which have been cited here, shows that morphemic

decomposition in Modern Russian based on the Russian pattern of roots (as well as other morphemes) is a reality, and not a fiction of theoretical linguistics. It is often not easy for the language to adapt the variegated and heterogeneous material which tends to inundate it. By hook or by crook the Russian language tries to reshape this non-accommodated matter and make it submit to the rules which characterize Modern Russian. This permanent conflict constitutes the gist of the morphological status of Modern Russian, considered synchronically. For synchrony is development, and not the eternal peace of a linguistic cemetery.

The structure of the Russian root from the viewpoint of dynamic synchrony has never been studied. In this rather informally written article many problems could only be touched, some of them only raised. Exhaustive treatment would require much more space. Preparatory studies are necessary. My purpose has been to turn attention to these questions and to show the most important aspects of the problems involved, not to give definitive solutions.

Notes

1. N. Trubetzkoy, Das morphonologische System der russischen Sprache (Prague, 1934) (TCLP 5, 2), p. 17.

2. Quoted from I. A. Bunin, Sobranie sočinenij v pjati tomax (5 vols., Moskva, 1956), IV, 28-30.

3. /jigór/, /d'iv'ataj/: both /o/ and /a/ in unstressed position after a palatalized or palatal consonant can be realized in Modern Russian only as /i/. It is because of this that one can speak about identity of the two vowels in either word.

4. Although the number of the words taken for count is 500, the number of roots proved to be 505 because 5 compounds, comprising 2 roots each, occured in the texts.

5. M. Vasmer, Russisches etymologisches Wörterbuch (Heidelberg, 1953—), I, 296.

6. Their etymological difference is irrelevant for Modern Russian, because neither has referential meaning in Modern Russian. Nor does the difference in spelling (one or double p) matter: it is only graphic.

7. R. Avanesov, S. Ožegov, Russkoe literaturnoe udarenie i proiznošenie (Moskva, 1955), pp. 161-165, 171-175, 181-185, 191-195, 201-205, 211-215, 221-225, 231-235.

8. V. Vinogradov, Russkij jazyk (Grammatičeskoe učenie o slove) (Moskva-Leningrad, 1947), pp. 110 f.

9. A parallel with the Russian argot "prefix" ku-/ko- (Cf. V. Jagić, "Die Geheimsprachen bei den Slaven," Sitzungsberichte of Vienna Academy, 133 [1896], pp. 40 ff.) suggests itself.

10. The prerequisite being that we admit that in consonants a sequence non-palatal(ized)—palatal(ized) consonant —any consonant does occur. Then, posttonic /a/ after a palatalized consonant /m'/ is materialized automatically as /i/.

11. The popular substandard pronounciation of one among these words /t'ijáť-ir/ discloses that the usual tendency to decompose refractory words in a pleophonic root + a suffix is active where the artificial pronunciation cedes to a more "natural."

12. Trubetzkoy, 33. The word kolokol quoted above from Trubetzkoy is close to this type. The only difference is that the first syllable is stressed and not the middle. The remaining word from his list of allegedly trisyllabic roots, perepel, belongs to the same type unless we analyze it into a prefix pere- and, then, a monosyllabic root -pel.

13. In this case, however, one should speak of the suffixes beginning in -o-: -ógraf, -ólog, etc. (cf. -átor in dikt-átor, organiz-átor, etc.). There is no stress shift if another vowel precedes what etymologically is the second stem: kalligráf, mineralóg.

14. The percentage would be higher if it was taken in ratio to the total number of roots and not of the words. But still it would be low.

15. K. Čukovskij, Ot dvux do pjati (Moskva, 1955), p. 14. Further quoted as Čuk.

16. L. Leonov, Russkij les (Moskva, 1955), p. 421 (Sobranie sočinenij v pjati tomax, Vol. IV).

17. L. Bulaxovskij, "Russkoe udarenie zaimstvovannyx slov," Russkij jazyk v škole, 1956, No. 4. Further quoted as Bul.

18. These examples are taken from Akademija Nauk SSSR, Grammatika russkogo jazyka (Moskva, 1953), I, 249. Further quoted as Ak. Historically in baklaga, vataga, kibitka no stress shift took place. Their endings are new, added in Russian. Cf. Vasmer, s.vv.

19. Where there were no native Russian words with an identical suffix the accentual regularity was established for the new category partly on the basis of the most typical stress

in this category in the original language, and partly on the basis of the closest categories in Russian. These could have been substantives with analogous or similar suffixes (i.e., with the same vowel and structure), or adjectives with the same suffixes. Words quoted here as parallel are, correspondingly, either loan-words introduced into Russian as early as the seventeenth and eighteenth centuries, or adjectives with the same suffixes, or both.

20. Examples from Vinogradov, pp. 139 ff.

21. Cf. such Russian (originally rather Church Slavonic) words and old borrowings as brátija, katavásija, Ázija; the history of words in -nt is not so old. They were hardly influential until the late seventeenth century. The precedent was created by words of the type aksel'bánt, ad'jutánt, patént, prezidént. Cf. V. Vinogradov, Očerki po istorii russkogo literaturnogo jazyka XVII-XIX vv. (Leiden, 1950), p. 51.